

# Exhibit G

## 2020 Pat. App. LEXIS 7834

Patent Trial and Appeal Board

May 13, 2020, Decided

Appeal 2019-007020 Application 15/294,272 Technology Center 3600

**USPTO Bd of Patent Appeals & Interferences; Patent**

**Trial & Appeal Bd Decs.**

### Reporter

2020 Pat. App. LEXIS 7834 \*

## Ex parte PRAVEEN JAYACHANDRAN

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### Notice:

[\*1] ROUTINE OPINION. Pursuant to the Patent Trial and Appeal Board Standard Operating Procedure 2, the opinion below has been designated a routine opinion.

## Core Terms

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blockchain, abstract idea, recite, invent, technology, conventional, processor, patent, revise, monitor, additional element, generic, routine, practical application, subject matter, current assets, patent-eligible, lapse, has, log, human activity, well-understood, update, memory, prong

**Panel:** Before ERIC B. GRIMES, RACHEL H. TOWNSEND, and JAMIE T. WISZ, Administrative Patent Judges.

**Opinion By:** JAMIE T. WISZ

## Opinion

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WISZ, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant <sup>1</sup> seeks review of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b).

For the reasons set forth below, we AFFIRM.

CLAIMED SUBJECT MATTER

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<sup>1</sup> We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as International Business Machines Corporation. Appeal Br. 3.

The Specification describes "identifying asset states, linking assets to blockchain transactions and tracking assets in the blockchain, and more particularly . . . keeping a record of asset changes and related information in the blockchain for reference and planning of transactions." Spec. P 1.

Claims 1, 8, and 15 are independent claims. Claim 1 is illustrative and is set forth below (annotated with bracketed numbers for reference to the limitations in the claim):

1. A method implemented by a processor executing computer program instructions stored in memory, comprising:

[1] logging a transaction on a blockchain, by the processor; [2] linking one or more assets to the transaction, by the processor; [3] recording, by the processor, a current asset state on the blockchain of the one [\*2] or more assets responsive to linking the one or more assets to the transaction; [4] determining, by the processor, that one or more parties to the blockchain transaction has requirement criteria associated with the current asset state; and [5] monitoring the current asset state, by the processor, to identify whether a lapse in the requirement criteria has occurred.

Appeal Br. 42 (Claims Appendix). Independent claim 8 recites an apparatus comprising a processor configured to perform the recited steps and independent claim 15 recites a "non-transitory computer-readable storage medium" configured to store instructions to cause a processor to perform these steps. *Id.* at 43, 45.

## REJECTIONS

The Examiner rejected claims 1-20 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

### I. PRINCIPLES OF LAW

#### A. Section 101

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g., Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, [\*3] we are guided by the Court's two-part framework, described in *Mayo* and *Alice*. *Id.* at 217-18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75-77 (2012)). In accordance with that framework, we first determine whether the claim recites an abstract idea. See *Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk."); see also *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices ( *Alice*, 573 U.S. at 219-20; *Bilski*, 561 U.S. at 611); mathematical formulas ( *Parker v. Flook*, 437 U.S. 584, 594-95 (1978)); and mental processes ( *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts that recite abstract ideas, but are nonetheless determined to be patent eligible, include physical and chemical processes, such as "molding rubber products" ( *Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores" ( *id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267-68 (1853))); and manufacturing flour ( *Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

If the claim is "directed to" an abstract idea, we turn to the second part of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (quotation marks omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more

than a drafting effort designed to monopolize the [abstract idea]."<sup>2</sup> *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer [\*4] implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

#### B. USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance").<sup>2</sup> "All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." *Id.* at 51; see also October 2019 Update at 1.

Under the 2019 Revised Guidance and the October 2019 Update, we first look to whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) ("Step 2A, Prong One"); and

(2) additional elements that integrate the judicial exception into a practical application ( see MPEP § 2106.05(a)-(c), (e)-(h) (9th ed. Rev. 08.2017, Jan. 2018)) ("Step 2A, Prong Two").<sup>3</sup>

2019 Revised Guidance, 84 Fed. Reg. at 52-55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field ( see MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception ("Step 2B").

2019 Revised Guidance, 84 Fed. Reg. at 52-56.

## II. ANALYSIS

Applying the Revised Guidance to the facts on this record, we find that claims 1-20 are directed to patent-ineligible subject matter.

Claim 1 is directed to a method of logging and monitoring transactions on a blockchain. Following the first step of the *Mayo/Alice* analysis, we find that the claim is directed to a "process," and therefore falls into one of the broad statutory categories of patent-eligible subject matter under 35 U.S.C. § 101. We thus proceed to Step 2A, Prong One, of the Eligibility Guidance.

#### A. Guidance Step 2A, Prong 1

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<sup>2</sup>The Office issued further guidance on October 17, 2019. USPTO, *October 2019 Update: Subject Matter Eligibility* (the "October 2019 Update") (available at [https://www.uspto.gov/sites/default/files/documents/peg\\_oct\\_2019\\_update.pdf](https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf)).

<sup>3</sup>This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the [\*5] exception into a practical application. See 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. 54-55.

The Revised Guidance instructs us first to [\*6] determine whether any judicial exception to patent eligibility is recited in the claim. The Revised Guidance identifies three judicially-excepted groupings classified by the courts as abstract ideas: (1) mathematical concepts, (2) certain methods of organizing human activity such as fundamental economic practices, and (3) mental processes.

The Examiner finds that "[o]ther than the recitation of a processor, there is nothing in the claim that precludes the recited steps from practically being performed by the human mind" and, therefore, the claims recite a mental process. Final Act. 3. The Examiner further finds that the claims recite "a series of steps monitoring assets involved in a transaction where the assets are recorded in a blockchain which represents an accounting of transactions that occur between parties involved in a peer to peer network," which is a fundamental economic practice, which falls under certain methods of organizing human activity. Ans. 3.

We agree with the Examiner that claim 1 recites a judicial exception. More specifically, claim 1, reproduced above, recites a method implemented by a processor executing computer program instructions stored in a memory [\*7] comprising the steps of: [1] "logging a transaction on a blockchain," [2] "linking one or more assets to the transaction," [3] "recording . . . a current asset state on the blockchain . . ." [4] "determining . . . that one or more parties to the blockchain transaction has requirement criteria associated with the current asset state," and [5] "monitoring the current asset state . . ." Appeal Br. 42. Under the broadest reasonable interpretation, limitations [1] through [5] recite fundamental economic practices.

Appellant argues that "the claimed invention cannot reasonably be construed to be a process that can be performed mentally." Reply 4. Appellant further asserts that "blockchain technology is far removed from taking already existing human activities and merely digitizing them via software to run on a generic computer." *Id.* at 5.

Regardless of whether the invention can be performed mentally, we find that the claim does recite fundamental economic practices; i.e., monitoring transactions that occur on a blockchain. The Specification describes that "transactions on the blockchain are usually related to a purchase or sale of goods or assets" and that "[t]he assets are therefore part [\*8] of the blockchain transaction even though the transactions may not specify the asset data." Spec. P 2. The Specification further describes that "there is a need for entities or individuals, such as buyers, sellers, producers, consumers, etc., to have preferences with regard to assets which are bought or sold." *Id.* Such preferences, or "requirement criteria," may include "a product rating, product compliance measure, certification, etc." *Id.* P 20. Therefore, claim 1 recites logging and monitoring an economic transaction involving assets and identifying whether preferences regarding an asset have lapsed. Accordingly, we find that the steps of claim 1 recite a fundamental economic practice, which corresponds to the judicial exception of a method of organizing human activity.

#### B. Guidance Step 2A, Prong 2

Having determined that the claims recite a judicial exception, we next consider whether the claims integrate the judicial exception into a practical application. "[I]ntegration into a practical application" requires that the claim recite an additional element or a combination of elements, that when considered individually or in combination, "apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." 2019 Revised Guidance, 84 Fed. Reg. at 54.

Appellant asserts that the claimed invention integrates the alleged abstract idea into a practical application. Appeal Br. 33. Specifically, Appellant asserts that "the claimed invention is directed to tracking asset states in a blockchain and determining whether certain requirement criteria are met in this blockchain, or whether they have lapsed" and further asserts that:

[T]hese features represent at least an additional element that reflects an improvement in the functioning of a computer, or an improvement to another technology or technical field, and furthermore, apply or use the alleged judicial exception in some other meaningful way beyond generally linking the use of the alleged judicial

exception to a particular [\*9] technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the alleged exception.

*Id.* Appellant also contends that, "[t]he claimed invention provides a novel approach for monitoring blockchain asset states and determining whether they have lapsed." *Id.*

We are not persuaded by Appellant's arguments. We agree with the Examiner that "the claims here merely use a general purpose computer as a tool for logging a transaction, linking assets to the transaction and monitoring the current asset state" and that "[t]here is no claimed improvement to the technology of linking assets to the transaction." Ans. 3-4. We also agree with the Examiner that "there is no recitation of how the assets are linked to the transaction in the [S]pecification" and "the recitation of the blockchain occurs at a very high level." *Id.* at 4. While the claimed invention adds additional information to the blockchain (e.g., an asset state and requirement criteria), Appellant has not persuasively shown that this additional information actually changes the manner in which the blockchain itself works. Therefore, we do not find that the claims provide an improvement to the blockchain technology.

Accordingly, we find that there is no practical integration of the abstract idea. Other than the limitations directed to the abstract idea, discussed above, the remaining element is directed to a processor, which is a generic computer element that does not recite a specific data structure. For this reason, this element is distinguishable [\*10] from *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016) in which the claims were found to be an improvement to conventional databases.

As explained in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016), the "abstract idea exception has been applied to prevent patenting of claims that abstractly cover results where 'it matters not by what process or machinery the result is accomplished.' [ *O'Reilly v. Morse*, 56 U.S. 62, 113 (1853)]; see also *Mayo*, 132 S.Ct. at 1301." *McRO* stated that therefore, a court must "look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *McRO*, 837 F.3d at 1314. Here, the invention is claimed at a very high level of generality without integrating the abstract ideas into a practical application because Appellant did not explain sufficiently why the claims provide an additional element, outside the abstract idea, that improves the technology or technical field.

Therefore, on this record, we conclude that the judicial exception in Appellant's claims is not integrated into a practical application.

### C. Guidance Step 2B

Having determined that the judicial exception is not integrated into a practical application, we next evaluate the additional elements [\*11] individually and in combination to determine whether they provide an inventive concept, such as a specific limitation beyond the judicial exception that is not well-understood, routine, and conventional in the field, or whether the claim simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. See 2019 Revised Guidance, 84 Fed. Reg. 51.

Appellant asserts that the claims apply "blockchain technology in a novel way in order to monitor blockchain assets and determine whether lapses have occurred based on criteria" and that "[t]his is not merely using a generic computer to perform the unspecified alleged abstract idea" but, "[r]ather, this operation itself constitutes an additional element that must be analyzed." Appeal Br. 35-36. Appellant acknowledges that "the computing systems implementing the claimed invention may be conventional in some embodiments" but asserts that "what provides substantially more than any alleged abstract idea is the claimed process." *Id.* at 36. According to Appellant, similar to *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC, AT&T Corp.*, 827 F.3d 1341 (Fed. Cir. 2016), "it is the **process** that Appellant is claiming" and "implementing a new process for tracking assets and lapses in a blockchain" satisfies *Alice* and *BASCOM*. *Id.* at 36-38.

We are not persuaded by this argument. As found by the Examiner, in *BASCOM*, "the claims were held to be patent-eligible because the claimed solution focused upon [\*12] the specific asserted improvement in filtering technology by providing individually customizable filtering at a remote ISP server by taking advantage of the technical capability of certain communication networks." Ans. 5. Therefore, the invention in *BASCOM* "was a technological solution to a technological problem, using an improved filtering technology rather than using conventional filtering technology." *Id.* Unlike the claims in *BASCOM*, the current claims do not involve a technological solution to a technological problem but "provide a generically computer-implemented solution to a business-related or economic problem." *Id.*

Appellant further asserts that the claims are similar to those found patent eligible in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) because "the claimed invention is necessarily rooted in computer technology" in that "the claims arise out of needs specific to computer-based systems that simply did not exist in the pre-computer world" because "[i]t cannot be said that the blockchain existed prior to computers." Appeal Br. 38. According to Appellant, "the claimed invention adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is [\*13] indicative that an inventive concept may be present." *Id.* Specifically, Appellant asserts that the claims "are directed to tracking asset states in a blockchain and determining whether certain requirement criteria are met in this blockchain, or whether they have lapsed." *Id.* at 38-39

We are not persuaded that this fact pattern is similar to that in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014). *DDR Holdings* determined that the claims addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be transported instantly away from a host's website after clicking on an advertisement and activating a hyperlink. *DDR Holdings*, 773 F.3d at 1257. The Federal Circuit, thus, held that the claims were directed to patent-eligible subject matter because they claim a solution "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.* While the instant claims concern transactions occurring via computers, they merely apply generic computer technology to the fundamental economic practice of monitoring an asset state to identify whether a lapse in the requirement criteria (e.g., buyer or producer preferences), has occurred. Therefore, [\*14] the only additional element in the claim, which is not part of the abstract idea itself, is applying the abstract idea on a conventional computer.

Instead, we find the claimed invention more akin to the claims in *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014) than those in *DDR Holdings*. In *Ultramercial*, the patentee argued that its claims were "directed to a specific method of advertising and content distribution that was previously unknown and never employed on the Internet before." *Ultramercial*, 772 F.3d at 714. However, *Ultramercial* found that the majority of the steps were directed to the abstract idea of offering media content in exchange for viewing an advertisement, and the "routine additional steps[,] such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet[,] were insufficient to transform the patent-ineligible abstract idea into patent-eligible subject matter. *Id.* at 715-16. Here, while the claims recite a specific abstract idea for logging a transaction on a blockchain and monitoring a current asset state linked to the transaction, that idea does not alter the computer itself in any structural way.

Furthermore, Appellant did not direct us to anything in the Specification indicating that any [\*15] additional steps or components beyond the abstract idea recited in the claims are not generic or conventional. And we find the Specification describes the use of conventional components. For example, the Specification describes that "various types of processors" can be used. Spec. P 27. Similarly, a "computer program may be embodied on a computer readable medium, such as a storage medium," which includes random access memory ("RAM"), flash memory, hard disk, a compact disk read-only memory ("CD-ROM"), "or any other form of storage medium known in the art." *Id.* P 21. The use of a generic computer to perform generic computer functions that are "well-understood, routine, conventional activit[ies]" previously known in the industry is not enough to transform the abstract idea into a patent-eligible invention. See *Alice*, 573 U.S. at 225-26.

Accordingly, the preponderance of evidence of record supports the Examiner's finding that Appellant's claimed invention is directed to patent-ineligible subject matter. The rejection of claim 1 under 35 U.S.C. § 101 is affirmed.



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Independent claims 8 and 15 suffer from the same deficiencies as claim 1 and we affirm the rejection of these claims for the reasons discussed above. While Appellant argues that the Examiner did not provide analysis of the dependent claims, Appellant did not provide any evidence as to why the additional elements of the dependent claims render them eligible. Appeal Br. 40. Therefore, claims 2-7, 9-14, and 16-20 are [\*16] not argued separately, and fall with claims 1, 8, and 15. See 37 C.F.R. § 41.37(c)(1)(iv).

#### CONCLUSION

For the reasons described herein and those already of record, we affirm the Examiner's rejection of claims 1-20.

#### DECISION SUMMARY

In summary:

Claims	35 U.S.C.	Reference(s)/Basis	Affirmed	Reversed
Rejected	§			
1-20	101	Eligibility	1-20	

#### TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). See 37 C.F.R. § 1.136(a)(1)(iv).

#### AFFIRMED

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